



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

re Application of)
Raith)
Serial No. 09/498,772)
Filed: February 5, 2000)
For: SYSTEM AND METHOD FOR IMPROVING)
CHANNEL MONITORING IN A CELLULAR SYSTEM)
Attorney's Docket No. 4015-398)

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Examiner
Group App Unit: 258

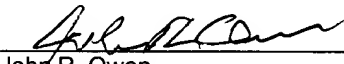
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John R. Owen

Appeal Brief

The present appeal brief is filed in triplicate pursuant to 37 C.F.R. §1.192.

Enclosed with this appeal brief is check number 11099 in the amount of \$330.00 to cover the requisite fee under 37 C.F.R. §1.17(c). If any additional fees are due or required, Applicant requests that this be considered a Petition therefore, and the Commissioner is hereby authorized to charge Deposit Account 18-1167.

(1) REAL PARTY IN INTEREST

The real party in interest is Ericsson Inc., assignee of the present invention.

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(2) RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences to the best of Applicant's knowledge.

(3) STATUS OF CLAIMS

Claims 1-49 have been presented for examination, of which claims 1, 6-7, 27-31, and 44 have been canceled, leaving claims 2-5, 8-26, 32-43, and 45-49 currently pending in the application.

The Examiner has allowed claim 2-5, 8-14, and 32-37.

The Examiner has rejected claims 15-26, 38-43, and 45-49 more than once. Applicant appeals from the rejection of claims 16-19, 22, 39-40, 43, and 45-49.¹

(4) STATUS OF AMENDMENTS

All amendments have been entered to the best of Applicant's knowledge.

(5) SUMMARY OF INVENTION

Applicant's invention relates to a mobile station capable of determining its current location within a wireless communication system. The mobile station periodically generates an estimate of its current location or mobility and then monitors channels for channel selection based thereon in order to minimize frame stealing while in active mode and save energy during idle mode. The same information is also useful for determining which cells to monitor and controlling how frequently position (or changes of position) estimates are made. Although the invention includes determining position of the mobile

¹ Applicant does not appeal the rejection of claims 15, 20-21, 23-26, 38, and 41-42.

station or the mobility of the mobile station, the manner in which the mobile station determines these characteristics may vary.

Several claims at issue in this appeal focus on controlling the frequency of performing the position updates, channel quality measurements, and/or some other periodic task (depending on the particular claims) as a function of the length of time the mobile station remains in one position.² Other claims relate to controlling the frequency as a function of the relative position of the mobile station with respect to a (first) base station. Still other claims relate to controlling the frequency as a function of the mobile station with respect to two different base stations. Finally, some of the claims also require that the position of the relevant base station be transmitted to the mobile station, so as to be available to aid the mobile terminal in determining its position.

(6) ISSUES

1. Whether claims 16-17, and 46-48 are unpatentable under 35 U.S.C. §102 over Ekstrom (U.S. Patent No. 6,052,597; hereinafter "Ekstrom").
2. Whether claims 18-19 are unpatentable under 35 U.S.C. §103 over Ekstrom in view of Soliman (U.S. Patent No. 6,490,460, hereinafter "Soliman").
3. Whether claims 22, 45, and 49 are unpatentable under 35 U.S.C. §103 over Ekstrom in view of Wan (U.S. Patent No. 6,385,460, hereinafter "Wan").
4. Whether claims 39-40, and 45 are unpatentable under 35 U.S.C. §103 over Ekstrom.
5. Whether claims 43 is unpatentable under 35 U.S.C. §103 over Ekstrom in view of Wan.

² Note that the claim language "frequency of performing" refers to the rate of performing the relevant task, and not, for instance, the radio frequency or frequencies used to take the relevant position measurements.

(7) GROUPING OF CLAIMS

The claims should be grouped as follows:

Group 1: Claim 22

Group 2: Claim 43

Group 3: Claim 49

Group 4: Claim 17

Group 5: Claim 40

Group 6: Claim 46-48

Group 7: Claim 16

Group 8: Claim 39

Group 9: Claim 45

Group 10: Claim 18-19

All claims in each group stand or fall together.

(8) ARGUMENT

A. The Law of Anticipation under §102

The PTO has the burden under §102 to establish a *prima facie* case of anticipation. In order to establish a *prima facie* case under §102, the Examiner must show that each and every element and limitation as set forth in the claim is found in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987); MPEP §2131. The claimed invention must be shown in as complete detail as contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Further, functional language cannot be ignored in determining anticipation. As

particularly set forth in *Pac-Tec, Inc. v. Amerace Corp.* 903 F.2d 796, 14 U.S.P.Q.2d 1871 (Fed. Cir. 1990), *cert. denied*, 502 U.S. 808 (1999), in determining anticipation functional language, preambles and language such as “whereby”, “thereby” and “adapted to” clauses cannot be ignored

B. The Law of Obviousness under §103

The PTO has the burden under §103 to establish a *prima facie* case of obviousness. In order to establish a *prima facie* case under §103, the Examiner must show 1) some suggestion or motivation to modify the primary reference or to combine the teachings of the references; 2) a reasonable expectation of success; and 3) that the prior art reference (or references, when combined) teach or suggest all the claim limitations. *E.g.*, *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974); MPEP §2143. Further, it must be noted that if an independent claim is non-obvious under §103, then any claim depending therefrom is non-obvious. *E.g.*, *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); MPEP §2143.03.

When combining references, the PTO can satisfy this burden only by showing some objective teaching in the prior art, or knowledge generally available to one of ordinary skill in the art, that would motivate one to combine the relevant teachings of the references. *In re Fine, supra*. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

Whether or not a teaching, motivation, or suggestion exists that would lead one skilled in the art to select and combine references is central to the question of patentability with respect to obviousness. *In re Lee*, 61 U.S.P.Q.2d 1430, 1433 (Fed.

Cir. 2002). Simply combining elements in a manner that reconstructs the applicant's invention only with the benefit of hindsight is insufficient with which to establish a *prima facie* case of obviousness. There must be some reason, suggestion, or motivation found in the prior art that would lead a person of ordinary skill in the field of the invention to make the combination. That knowledge cannot come from the applicant's invention itself. *In re Oetiker*, 977 F.2d 1443, 24 U.S.P.Q.2d 1443 (Fed. Cir. 1992). Therefore, in advancing a motivation to combine references, the Examiner must adequately address the issue of motivation to combine, specifically pointing out the reasoning supporting such a combination, and basing the reasoning on concrete evidence of record. *In re Lee, supra*.

C. The Examiner has failed to make out a *prima facie* case of anticipation or obviousness.

Applicant submits that the Examiner has failed to make out a *prima facie* case of anticipation and/or obviousness for the appealed claims, as explained further below, and the corresponding rejections must therefore fail.

Group 1

Claim 22 explicitly requires "wherein said frequency of updating said position is a function of the length of time said mobile station remains in said position." On this point, the Board's attention is directed to page 23, lines 8-21 of the present application.

The Examiner admits that the Ekstrom fails to show this limitation (see Action of October 2003, page 6); as a result, the Examiner points to Wan in an attempt to show the claimed "length of time ... remains in said position" aspect. The Examiner then bases the §103 rejection on Ekstrom as modified by Wan. However, a combination of

Ekstrom and Wan is not legally proper; and, even if made, does not teach the claimed limitation.

After initially pointing to Wan col. 2, lines 21-31, the Examiner now points to col. 2, lines 10-20 of Wan in an attempt to show this feature. While this passage of Wan does talk about *moving* mobile terminals, neither this passage nor anything else in Wan suggests looking at how long the mobile station is in a particular location. Instead, the relevant teachings of Wan are solely focused than the *speed* of the mobile station. Applicant submits that even if it is known that a mobile station has a speed of zero, this tells us nothing about how long it has had a speed of zero. It is the latter that is addressed by dependent claim 22. Such is neither shown nor suggested by Wan, which is solely speed-based. Further on this point, the Board is also encouraged to look at independent claim 8, which has been allowed by the Examiner, for a similar "length of time ... remains in said position" limitation.

In view of the above, Applicant submits that dependent claim 22 defines patentable subject matter over Ekstrom in view of Wan, assuming *arguendo* such combination is proper.

Further, Applicant submits that the Examiner has not put forth a legally sufficient motivation to combine Ekstrom with Wan. Regarding the combination, the Examiner starts by stating that Wan shows the relevant limitation (something Applicant disputes, see *supra*), and then the Examiner immediately continues "Therefore, it would have been obvious ... to modify Ekstrom with the teachings of Wan for the purpose of conserving battery power of the mobile station if the position of the mobile station has not changed position," (Action of October 2003, page 6, lines 6-9). Applicant submits that this statement merely represents impermissible hindsight reconstruction of Applicant's own invention. The Examiner completely fails to point to any portion of either

Ekstrom or Wan to support this purported motivation to combine. Nor does the Examiner otherwise explain where this motivation came from. Applicant therefore submits that the Examiner has failed to put forth any legally sufficient motivation to combine Ekstrom with Wan, which necessarily means that the Examiner has not established a legally sufficient *prima facie* case of obviousness.

In view of the above, Applicant submits that the Examiner has not established a legally proper *prima facie* case of obviousness for dependent claim 22. As such, Applicant submits that dependent claim 22 defines patentable subject matter over the cited art.

Group 2

Claim 43 explicitly requires "wherein said control logic varies the frequency of determining said position of said mobile station based on the length of time said mobile station remains in said position." Thus, similar to claim 22, claim 43 includes a "length of time ... remains in said position" limitation.

Applicant submits that for reasons similar to those set forth above with respect to dependent claim 22, the Examiner has not put forth a legally sufficient motivation to combine Wan with Ekstrom.³ Further, for the reason similar to those expressed above for claim 22, Applicant submits that even if combined, the combination does not teach or suggest the ""length of time ... remains in said position" limitation. As such, Applicant submits that the Examiner's has failed to put forth a legally sufficient *prima facie* case of obviousness and the corresponding §103 rejection of claim 43 must fail.

³ Applicant notes that the relevant discussion in the Action of October 2003 for the claim 43 rejection can be found on page 9, but the language of the rejection of claim 43 appears to be identical to that for the rejection of claim 22.

Group 3

Claim 49 explicitly requires "wherein said frequency of performing said periodic task is a function of the length of time said mobile station remains in said position." Thus, similar to claim 22, claim 49 includes a "length of time ... remains in said position" limitation.

Applicant submits that for reasons similar to those set forth above with respect to dependent claim 22, the Examiner has not put forth a legally sufficient motivation to combine Wan with Ekstrom. Further, for the reason similar to those expressed above for claim 22, Applicant submits that even if combined, the combination does not teach or suggest the ""length of time ... remains in said position" limitation. As such, Applicant submits that the Examiner's has failed to put forth a legally sufficient *prima facie* case of obviousness and the corresponding §103 rejection of claim 49, and its dependent claim 45, must fail.

Group 4

Claim 17 explicitly requires "wherein said frequency of updating said position is a function of the relative position of said mobile station with respect to a first base station serving said mobile station and at least one of said additional base station." The Examiner rejects claim 17 under §102 over Ekstrom only. The Examiner points to Ekstrom col. 10, lines 5-43, and alleges without any other explanation whatsoever that this passage teaches the relevant limitation. A reading of this cited passage of Ekstrom, however, shows that the passage merely describes a "time of arrival" type determination of the mobile terminal's position. While Ekstrom indicates that the mobile's position may be determined by this method, and then reported to the "customer," there is absolutely no indication anywhere in Ekstrom that the "relative position of said mobile station with

respect to a first base station serving said mobile station and at least one of said additional base station" is in any way used to adjust the "frequency of updating said position." Indeed, there does not appear to be any link whatsoever between the position determining process of Ekstrom col. 10, lines 5-43 and how frequently such a position determination is made. Thus, Applicant respectfully submits that Ekstrom fails to teach the limitation added by dependent claim 17. Accordingly, Applicant submits that the Examiner has failed to put forth a legally sufficient *prima facie* case of anticipation and the corresponding §102 rejection of claim 17 must fail.

Group 5

Claim 40 explicitly requires "wherein said control logic varies the frequency of determining said position of said mobile station based on the relative position of said mobile station with respect to a first base station serving said mobile station and at least one additional base station." Applicant submits that for reasons similar to those set forth above with respect to dependent claim 17, the Examiner has not shown any link whatsoever between the position determining process of Ekstrom col. 10, lines 5-43 and how frequently such a position determination is made. Thus, Applicant respectfully submits that Ekstrom fails to teach the limitation added by dependent claim 40. Accordingly, Applicant submits that the Examiner has failed to put forth a legally sufficient *prima facie* case of obviousness and the corresponding §103 rejection of claim 40 must fail.

Group 6

Claim 46 explicitly requires "wherein said frequency of performing said periodic task is a function of the relative position of said mobile station with respect to a first base

station serving said mobile station and at least one additional base station." Applicant submits that for reasons similar to those set forth above with respect to dependent claim 17, the Examiner has not shown any link whatsoever between the position determining process of Ekstrom col. 10, lines 5-43 and how frequently such a position determination is made. Thus, Applicant respectfully submits that Ekstrom fails to teach each limitation of independent claim 46. Accordingly, Applicant submits that the Examiner has failed to put forth a legally sufficient *prima facie* case of anticipation and the corresponding §102 rejection of claims 46-48 must fail.

Group 7

Claim 16 explicitly requires "wherein said frequency of updating said position is a function of the relative position of said mobile station with respect to a first base station serving said mobile station." In rejecting claim 16 under §102, the Examiner points to Ekstrom col. 5, lines 3-14. However, this cited passage of Ekstrom merely describes a "time of arrival" type determination of the mobile terminal's position. There is absolutely no indication anywhere in Ekstrom of any link whatsoever between the position determining process of Ekstrom col. 5, lines 3-14 and how frequently such a position determination is made. Applicant readily admits that a "time of arrival" position determination technique has internal values that vary based on the relative position with respect to a particular base station (i.e., the "flight time" varies based on how far away one is from the relevant transmitting base station). However, simply because a mobile's position may be determined using a method that has internal values that vary based on the relative position with respect to a particular base station does not mean that the frequency of making such a determination is magically a "function of the relative position of said mobile station with respect to" that base station. Thus, Applicant respectfully

submits that Ekstrom fails to teach the limitation added by dependent claim 16.

Accordingly, Applicant submits that the Examiner has failed to put forth a legally sufficient *prima facie* case of anticipation and the corresponding §102 rejection of claim 16 must fail.

Group 8

Claim 39 explicitly requires "wherein said control logic varies the frequency of determining said position of said mobile station based on the relative position of said mobile station with respect to a first base station serving said mobile station." Applicant submits that for reasons similar to those set forth above with respect to dependent claim 16, the Examiner has not shown that the position determining process of Ekstrom col. 5, lines 3-14 somehow shows adjusting the "frequency of determining said position of said mobile station based on the relative position of said mobile station with respect to" the relevant base station. Thus, Applicant respectfully submits that Ekstrom fails to teach the limitation added by dependent claim 39. Accordingly, Applicant submits that the Examiner has failed to put forth a legally sufficient *prima facie* case of obviousness and the corresponding §103 rejection of claim 39 must fail.

Group 9

Claim 45 explicitly requires "wherein said frequency of performing said periodic task is a function of the relative position of said mobile station with respect to a first base station serving said mobile station." Applicant submits that for reasons similar to those set forth above with respect to dependent claim 16, the Examiner has not shown that the position determining process of Ekstrom col. 5, lines 3-14 somehow shows that the "frequency of performing said periodic task" is dependent on "the relative position of said

mobile station with respect to" the relevant base station. Thus, Applicant respectfully submits that Ekstrom fails to teach the limitation added by dependent claim 45.

In addition, Applicant submits that claim 45, being dependent from claim 49, is patentable for the reasons expressed above with respect to claim 49.

Accordingly, Applicant submits that the Examiner has failed to put forth a legally sufficient *prima facie* case of obviousness and the corresponding §103 rejection of claim 45 must fail.

Group 10

Claims 18-19 depend from claim 17 (group 4) and also explicitly require "wherein the position of said at least one additional base station is transmitted to said mobile station by said first base station." In addition to the reasons set forth above with respect to claim 17, Applicant submits that the Examiner has not put forth a legally sufficient *prima facie* case of obviousness and the corresponding §103 rejection of claims 18-19 must fail.

Regarding the limitation added by claim 18, the Examiner admits that "Ekstrom fails to disclose wherein the position of the at least one additional base station is transmitted to the mobile station by said first base station [serving the mobile station]," Action of October 2003, page 4. As such, the Examiner points to Soliman col. 7, line 40 to col. 8, line 6 and asserts "At the time of the invention, it would have been obvious...to modify Ekstrom with the teachings of Soliman for the purpose of allowing the mobile station to know the location of a possible handoff candidate," Action of October 2003, page 5, lines 1-3. Applicant submits that the combination of Soliman with Ekstrom legally improper; and, even if made, does not teach the claimed limitation.

First, Applicant admits that the cited passage of Soliman indicates that "base station position information [is] sent from a base station to the mobile unit," Soliman col. 8, lines 5-6. Note that the cited passage *does not* say a single base station sends the mobile unit the position of more than one base station. Instead, the cited passage at most suggests that each individual base station transmits *its own* position in some signal that is processed by the Soliman decoder. Even assuming this to be true, there is no indication that the Soliman base stations transmit both the position of themselves and the position of another base station. Thus, Soliman simply does not teach that the position of base station B is transmitted by base station A. It necessarily follows that Soliman simply does not teach "wherein the position of said at least one additional base station [e.g., base station B] is transmitted to said mobile station by said first base station [e.g., base station A]." Accordingly, the combination of Soliman with Ekstrom cannot teach each of the claim limitations of claim 18, even assuming *arguendo* that such combination is proper.

Second, Applicant submits that the motivation to combine Soliman with Ekstrom put forth by the Examiner is nothing more than impermissible hindsight reconstruction of Applicant's invention of claim 18. The Examiner asserts that the motivation is "for the purpose of allowing the mobile station to know the location of a possible handoff candidate." However, the Examiner appears to pull this motivation from thin air. There is absolutely no reference to any such rationale in either Ekstrom or Soliman, or anywhere else for that matter. It would appear that the Examiner found some teaching in Soliman that he feels looks like the limitation added by dependent claim 18, and then simply fabricated a "motivation" without any attempt to provide a legally proper basis for that motivation. Such does not meet the requirements of §103 as set forth by the Federal Circuit, but is instead impermissible hindsight reconstruction of Applicant's

invention. Accordingly, Applicant submits that the Examiner has failed to establish a *prima facie* case under §103 due to the lack of a legally sufficient "motivation" to combine Soliman with Ekstrom.

In view of the above, Applicant submits that the Examiner has not established a legally proper *prima facie* case of obviousness for dependent claim 18. As such, Applicant submits that dependent claims 18-19 define patentable subject matter over the cited art.


Summary of Argument

The Examiner has failed to establish a legally sufficient *prima facie* case of anticipation and/or obviousness for any of the appealed claims. For the §102 rejections, Ekstrom simply fails to make the teachings asserted by the Examiner and otherwise fails to teach each limitation of the corresponding claims rejected under §102. For the §103 rejections, the Examiner admits that Ekstrom fails to teach many elements of the claims at issue and the addition of Wan or Soliman is not supported by a legally proper "motivation" and simply does not cure the defects of Ekstrom. Accordingly, the §102 and §103 rejections put forth by the Examiner for the appealed claims must be reversed.

Conclusion

For the reasons set forth above, all claims being appealed herein are patentable, and the rejections maintained by the Examiner must be reversed.

Respectfully submitted,
COATS & BENNETT, P.L.L.C.

A handwritten signature in black ink, appearing to read "John R. Owen", written over a horizontal line.

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Dated: January 30, 2004

(9) APPENDIX

Claims

1. (Cancelled)
2. The channel selection method of claim 8 wherein said frequency of performing said channel quality measurements is a function of the relative position of said mobile station with respect to a first base station serving said mobile station.
3. A method of channel selection for a mobile station comprising:
determining a position of said mobile station;
periodically performing channel quality measurements of signals transmitted from one or more base stations, wherein the frequency of performing said channel quality measurements is a function of said position of said mobile station; and
wherein said frequency of performing said channel quality measurements is a function of the relative position of said mobile station with respect to a first base station serving said mobile station and at least one additional base station.
4. The channel selection method of claim 3 wherein said position of said at least one additional base station is transmitted to said mobile station by said first base station.
5. The channel selection method of claim 4 wherein the position of said at least one additional base station is included in a neighbor list transmitted to said mobile station by said first base station.
- 6-7. (Cancelled)

8. A method of channel selection for a mobile station comprising:
determining a position of said mobile station;
periodically performing channel quality measurements of signals transmitted
from one or more base stations, wherein the frequency of performing
said channel quality measurements is a function of said position of said
mobile station; and
wherein said frequency of performing said channel quality measurements is
a function of the length of time said mobile station remains in said
position.
9. The channel selection method of claim 8 wherein said channel quality
measurements are performed by said mobile station while said mobile station is in an
idle mode.
10. The channel selection method of claim 3 wherein said channel quality
measurements are performed by said mobile station while said mobile station is
engaged in a packet switched call.
11. The channel selection method of claim 3 wherein said channel quality
measurements are performed by said mobile station while said mobile station is
engaged in a circuit switched call.
12. The channel selection method of claim 3 wherein said mobile station uses said
channel quality measurement for cell reselection.
13. The channel selection method of claim 3 further including transmitting said
channel quality measurements from said mobile station to a first base station serving
said mobile station.

14. The channel selection method of claim 13 further including making hand-off determinations at said first base station based on said channel quality measurements.
15. A method of determining the position of a mobile station comprising:
determining a position of said mobile station at a first time instant; and
updating said position periodically, wherein a frequency of said updating is a function of said position of said mobile station.
16. The method of claim 15 wherein said frequency of updating said position is a function of the relative position of said mobile station with respect to a first base station serving said mobile station.
17. The method of claim 15 wherein said frequency of updating said position is a function of the relative position of said mobile station with respect to a first base station serving said mobile station and at least one of said additional base station.
18. The channel selection method of claim 17 wherein the position of said at least one additional base station is transmitted to said mobile station by said first base station.
19. The method of claim 18 wherein said position of said at least one additional base station is included in a neighbor list transmitted to said mobile station by said first base station.
20. The method of claim 15 wherein said frequency of updating said position is a function of the mobility of said mobile station.
21. The method of claim 20 wherein said frequency of updating said position is a function the rate of change of said position of said mobile station.

22. The channel selection method of claim 20 wherein said frequency of updating said position is a function of the length of time said mobile station remains in said position.

23. The method of claim 15 wherein said updating is performed by said mobile station while said mobile station is in an idle mode.

24. The method of claim 15 wherein said updating is performed by said mobile station while said mobile station is engaged in a packet switched call.

25. The method of claim 15 wherein said updating is performed by said mobile station while said mobile station is engaged in a circuit switched call.

26. The method of claim 15 further including transmitting position information from said mobile station to said base station.

27-31.(Cancelled)

32. The mobile station of claim 36 wherein said control logic varies the frequency of performing said channel quality measurements based on the relative position of said mobile station with respect to a first base station serving said mobile station.

33. A mobile station comprising:

a transceiver for transmitting and receiving radio frequency signals;

a signal processor operatively connected to said transceiver for periodically performing channel quality measurements on selected signals received by said transceiver;

control logic for controlling said signal processor and said transceiver to vary the frequency of performing said channel quality measurements as a function of the position of said mobile station; and

wherein said control logic varies the frequency of performing said channel quality measurements based on the relative position of said mobile station with respect to a first base station serving said mobile station and at least one additional base station.

34. The mobile station of claim 33 wherein said control logic varies the frequency of performing said channel quality measurements based on the mobility of said mobile station.

35. The mobile station of claim 33 wherein said control logic varies the frequency of performing said channel quality measurements based on the rate of change of said position of said mobile station.

36. A mobile station comprising:
- a transceiver for transmitting and receiving radio frequency signals;
 - a signal processor operatively connected to said transceiver for periodically performing channel quality measurements on selected signals received by said transceiver;
 - control logic for controlling said signal processor and said transceiver to vary the frequency of performing said channel quality measurements as a function of the position of said mobile station; and
 - wherein said control logic varies the frequency of performing said channel quality measurements based on the length of time said mobile station remains in said position.
37. The mobile station of claim 33 further including a positioning receiver for determining the position of said mobile station.
38. A mobile station comprising:
- a transceiver transmitting and receiving radio frequency signals;
 - a positioning receiver periodically determining a position of said mobile station;
 - control logic controlling said transceiver and said positioning receiver, wherein said control logic varies the frequency of determining said position of said mobile station as a function of said position.
39. The mobile station of claim 38 wherein said control logic varies the frequency of determining said position of said mobile station based on the relative position of said mobile station with respect to a first base station serving said mobile station.

40. The mobile station of claim 38 wherein said control logic varies the frequency of determining said position of said mobile station based on the relative position of said mobile station with respect to a first base station serving said mobile station and at least one additional base station.

41. The mobile station of claim 38 wherein said control logic varies the frequency of determining said position of said mobile station based on the mobility of said mobile station.

42. The mobile station of claim 38 wherein said control logic varies the frequency of determining said position of said mobile station based on the rate of change of said position of said mobile station.

43. The mobile station of claim 38 wherein said control logic varies the frequency of determining said position of said mobile station based on the length of time said mobile station remains in said position.

44. (Cancelled)

45. The control method of claim 49 wherein said frequency of performing said periodic task is a function of the relative position of said mobile station with respect to a first base station serving said mobile station.

46. A method of controlling a mobile station comprising:

determining a position of said mobile station;
performing a periodic task, wherein the frequency of performing said task is
a function of said position of said mobile station; and
wherein said frequency of performing said periodic task is a function of the
relative position of said mobile station with respect to a first base station
serving said mobile station and at least one additional base station.

47. The control method of claim 46 wherein said frequency of performing said
periodic task is a function of the mobility of said mobile station.

48. The control method of claim 47 wherein said frequency of performing said
periodic task is a function the rate of change of said position of said mobile station.

49. A method of controlling a mobile station comprising:

determining a position of said mobile station;
performing a periodic task, wherein the frequency of performing said task is
a function of said position of said mobile station; and
wherein said frequency of performing said periodic task is a function of the
length of time said mobile station remains in said position.